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Evaluating the effects of exercise on cognitive function in hypertensive and diabetic patients using the mental test and training system

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Abstract

© 2017 Informa UK Limited, trading as Taylor & Francis Group Objectives: Systemic arterial hypertension (SAH) and diabetes mellitus (DM) are important risk factors for developing cognitive impairment. General life-style changes including physical training are known to reduce elevated blood pressure and sugar levels, as well as improve mental health. The objective of this study was to evaluate whether supervised physical exercise enhances the cognitive status of patients with chronic diseases. Methods: Volunteers with SAH, DM or SAH + DM participated in either aerobic or resistance training during a period of 12 weeks. Several domains of cognitive functions were evaluated using the mental test and training system before and after the 3 months. Results: Participants with either of these chronic diseases demonstrated significantly improved attention and concentration, but not reaction time, following the supervised exercise. Conclusions: Structured physical training promotes several aspects of cognitive functions in diabetic and hypertensive patients.

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Keywords

Cognitive function, diabetes, exercise, hypertension, mental test and training system, physical activity